

## EAST Search History

| Ref # | Hits | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|---|---|------------------|---------|------------------|
| S1    | 4293 | halftoning  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/23 12:39 |
| S2    | 57   | halftoning same watermark   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/23 15:43 |
| S3    | 283  | error adj diffusion adj halftoning  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/01/25 01:09 |
| S4    | 5    | error adj diffusion adj halftoning same watermark   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/23 12:51 |
| S5    | 1    | ("6694041").PN.   | US-PGPUB;<br>USPAT  | OR               | OFF     | 2007/05/23 12:52 |
| S6    | 1    | ("6449377").PN.   | US-PGPUB;<br>USPAT  | OR               | OFF     | 2007/05/23 12:54 |
| S7    | 55   | watermark with (transmit transmit\$4 communicat\$3) with (telephone phone fax facsimile)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/24 11:39 |
| S8    | 14   | halftoning same (hash signature)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/23 15:45 |
| S9    | 0    | ("6804373").URPN.   | USPAT   | OR               | ON      | 2007/05/23 14:01 |
| S10   | 11   | ("4405829"   "5111310"   "5438634"   "5488664"   "5734752"   "5917951"   "6025930"   "6064764"   "6088123"   "6381371"   "6522766").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2007/05/23 14:02 |

## EAST Search History

|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| S11 | 97 | ("20010047476"   "4637051"  <br>"4777357"   "4822986"   "4901073"<br>  "4924078"   "5060980"  <br>"5075862"   "5091966"   "5120940"<br>  "5153928"   "5195123"  <br>"5315098"   "5337361"   "5339170"<br>  "5459307"   "5486686"  <br>"5490217"   "5513563"   "5523552"<br>  "5527407"   "5541396"  <br>"5544255"   "5550365"   "5591956"<br>  "5644408"   "5644655"  <br>"5647017"   "5661284"   "5682030"<br>  "5706099"   "5710636"  <br>"5710814"   "5765176"   "5767496"<br>  "5778076"   "5790703"  <br>"5799112"   "5801944"   "5818955"<br>  "5818970"   "5819240"  <br>"5828772"   "5835615"   "5838814"<br>  "5866895"   "5871288"  <br>"5880451"   "5897669"   "5898166"<br>  "5912745"   "5946414"  <br>"5946415"   "5953426"   "5974147"<br>  "5974200"   "5982506"  <br>"5982896"   "5996893"   "6032861"<br>  "6064738"   "6064751"  <br>"6064764"   "6091835"   "6116510"<br>  "6141441"   "6141450"  <br>"6151590"   "6172773"   "6175827"<br>  "6193158"   "6201901"  <br>"6212281"   "6212504"   "6240196"<br>  "6240212"   "6252675"  <br>"6256398"   "6263086"   "6307955"<br>  "6311214"   "6345104"  <br>"6364209"   "6373587"   "6398117"<br>  "6427021"   "6430302"  <br>"6457651"   "6470096"   "6493110"<br>  "6510997"   "6526155"  <br>"6601172"   "6611598"   "6611623"<br>  "6748533"   "6938017").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2007/05/23 14:10 |
| S12 | 2  | halftoning same (verification authentication) adj (index key)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/23 15:02 |
| S13 | 56 | halftoning and (hash signature). clm.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/23 15:03 |
| S14 | 0  | ("6775394").URPN.   | USPAT   | OR | ON | 2007/05/23 15:14 |

## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S15 | 16  | ("3564130"   "3564131"   "5073925"   "5499294"   "5710636"   "5734752"   "5765176"   "5790703"   "5862260"   "5905800"   "5905819"   "5915027"   "6252971"   "6263086"   "6285775"   "6456393").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2007/05/23 15:19 |
| S16 | 1   | ("6188766").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/23 22:13 |
| S17 | 5   | ("5377017"   "5515176"   "5671285"   "5715070"   "5923763").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2007/05/23 15:20 |
| S18 | 26  | ("6188766").URPN.   | USPAT   | OR | ON  | 2007/05/23 15:26 |
| S19 | 1   | ("7152047").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/23 15:26 |
| S20 | 178 | halfon\$3 same watermark  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 15:44 |
| S21 | 75  | halfon\$3 same (hash signature) not S8  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 15:49 |
| S22 | 79  | halfon\$3 same glyph  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 15:50 |
| S23 | 712 | authentica\$3 with display with (key watermark signature)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 22:13 |
| S24 | 314 | authentica\$3 with display near5 (key watermark signature)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 22:14 |

## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S25 | 5   | halfon\$3 and authenticat\$3 with display near5 (key watermark signature)                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 22:19 |
| S26 | 0   | authenticat\$3 with display near5 (key watermark signature) same inspect  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 22:19 |
| S27 | 18  | authenticat\$3 with display near5 (key watermark signature) same visual\$3                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 22:19 |
| S28 | 17  | watermark with (transmit transmit\$4 communicat\$3) with (fax facsimile)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 23:37 |
| S29 | 1   | ("6188766").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/23 23:32 |
| S30 | 26  | ("6188766").URPN.   | USPAT   | OR | ON  | 2007/05/23 23:32 |
| S31 | 146 | signature with (transmit transmit\$4 communicat\$3) with (fax facsimile)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/23 23:48 |
| S32 | 197 | (713/179).CCLS.   | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/23 23:49 |
| S33 | 9   | ("4309569"   "5311591"   "5373561"   "5432852"   "5465299"   "5712914"   "5903651"   "5995623"   "6161183").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2007/05/23 23:51 |
| S34 | 1   | ("5652794").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/24 11:33 |
| S35 | 8   | ("5652794").URPN.   | USPAT   | OR | ON  | 2007/05/24 11:33 |
| S36 | 8   | ("5157726"   "5159630"   "5208858"   "5245655"   "5337361"   "5388158"   "5422954"   "5530755").PN.             | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2007/05/24 11:37 |

## EAST Search History

|     |     |  |   |    |     |                  |
|-----|-----|--|---|----|-----|------------------|
| S37 | 740 | (signature hash) with (send\$3 transmit\$4 communicat\$3) with (telephone phone fax facsimile)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/24 11:40 |
| S38 | 189 | (verify verification authenticat\$3) same (signature hash) with (send\$3 transmit\$4 communicat\$3) with (telephone phone fax facsimile) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/24 11:40 |
| S39 | 2   | "6804373"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/24 13:26 |
| S40 | 1   | ("6507656").PN.  | US-PGPUB;<br>USPAT  | OR | OFF | 2007/05/24 14:28 |
| S41 | 19  | (halftoning and (watermark key hash signature)).clm.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/05/24 14:29 |
| S42 | 210 | (713/179).CCLS.  | US-PGPUB;<br>USPAT  | OR | OFF | 2007/09/15 02:27 |
| S43 | 13  | S42 and (@pd > "20070523")   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/09/15 02:28 |
| S44 | 210 | (713/179).CCLS.  | US-PGPUB;<br>USPAT  | OR | OFF | 2007/09/15 21:44 |
| S45 | 2   | S44 and halftoning   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/09/15 21:45 |
| S46 | 225 | (713/179).CCLS.  | US-PGPUB;<br>USPAT  | OR | OFF | 2008/01/25 01:09 |
| S47 | 15  | S46 and (@pd > "20070915")   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/01/25 01:09 |

## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S48 | 0   | ("6804373").URPN.   | USPAT   | OR | ON  | 2008/01/25 01:15 |
| S49 | 225 | (713/179).CCLS.   | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 13:09 |
| S50 | 15  | S49 and (@pd > "20070915")  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 13:10 |
| S51 | 1   | ("20050166052").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 13:23 |
| S52 | 0   | ("6804373").URPN.   | USPAT   | OR | ON  | 2008/02/02 13:29 |
| S53 | 197 | halfon\$3 same watermark  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 13:30 |
| S54 | 16  | ("6526155").URPN.   | USPAT   | OR | ON  | 2008/02/02 15:35 |
| S55 | 8   | ("5315098"   "5446857"  <br>"5692109"   "5889868"   "6000613"<br>  "6526155"   "6690811"  <br>"6694041").PN.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2008/02/02 15:36 |
| S56 | 25  | ("20010022667"   "20010030769"  <br>"20010053299"   "20020002679"  <br>"20020012447"   "5315098"  <br>"5617119"   "5734752"   "5790703"<br>  "5825892"   "5832119"  <br>"5835639"   "5875249"   "5933798"<br>  "5946103"   "5949055"  <br>"5974548"   "6104812"   "6128411"<br>  "6233347"   "6246777"  <br>"6252971"   "6263086"   "6526155"<br>  "6839450").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2008/02/02 15:46 |
| S57 | 1   | ("5598473").PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 15:51 |

## EAST Search History

|     |    |  |   |    |    |                  |
|-----|----|--|---|----|----|------------------|
| S58 | 97 | ( "20010047476"   "4637051"  <br>"4777357"   "4822986"   "4901073"<br>  "4924078"   "5060980"  <br>"5075862"   "5091966"   "5120940"<br>  "5153928"   "5195123"  <br>"5315098"   "5337361"   "5339170"<br>  "5459307"   "5486686"  <br>"5490217"   "5513563"   "5523552"<br>  "5527407"   "5541396"  <br>"5544255"   "5550365"   "5591956"<br>  "5644408"   "5644655"  <br>"5647017"   "5661284"   "5682030"<br>  "5706099"   "5710636"  <br>"5710814"   "5765176"   "5767496"<br>  "5778076"   "5790703"  <br>"5799112"   "5801944"   "5818955"<br>  "5818970"   "5819240"  <br>"5828772"   "5835615"   "5838814"<br>  "5866895"   "5871288"  <br>"5880451"   "5897669"   "5898166"<br>  "5912745"   "5946414"  <br>"5946415"   "5953426"   "5974147"<br>  "5974200"   "5982506"  <br>"5982896"   "5996893"   "6032861"<br>  "6064738"   "6064751"  <br>"6064764"   "6091835"   "6116510"<br>  "6141441"   "6141450"  <br>"6151590"   "6172773"   "6175827"<br>  "6193158"   "6201901"  <br>"6212281"   "6212504"   "6240196"<br>  "6240212"   "6252675"  <br>"6256398"   "6263086"   "6307955"<br>  "6311214"   "6345104"  <br>"6364209"   "6373587"   "6398117"<br>  "6427021"   "6430302"  <br>"6457651"   "6470096"   "6493110"<br>  "6510997"   "6526155"  <br>"6601172"   "6611598"   "6611623"<br>  "6748533"   "6938017").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2008/02/02 16:15 |
| S59 | 44 | halfton\$3 same watermark and<br>facsimile   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/02/02 16:24 |
| S60 | 5  | halfton\$3 and (receiver same<br>display\$3 same (verif\$4 verification<br>authentica\$4))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/02/02 16:47 |

## EAST Search History

|     |      |  |   |    |     |                  |
|-----|------|--|---|----|-----|------------------|
| S61 | 20   | halfon\$3 same visible near3 watermark   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 16:56 |
| S62 | 16   | ("6526155").URPN.  | USPAT   | OR | ON  | 2008/02/02 17:14 |
| S63 | 84   | halfon\$3 same glyph   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 17:27 |
| S64 | 1    | ("5315098").PN.  | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 17:30 |
| S65 | 1499 | authentica\$3 same display near3 (image key glyph)                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 17:46 |
| S66 | 217  | authentica\$3 same display near3 (image key glyph) same ("same" identical match) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 17:48 |
| S67 | 20   | authentica\$3 same display near3 (signature) same ("same" identical match)       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 17:50 |
| S68 | 3    | halfon\$3 and kocher.in.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:19 |
| S69 | 0    | halfon\$3 and kochner.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:20 |



## EAST Search History

|     |        |  |   |    |     |                  |
|-----|--------|--|---|----|-----|------------------|
| S71 | 134111 | (facsimile barcode).ab.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:28 |
| S72 | 221    | facsimile.ab. and barcode.ab.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:28 |
| S73 | 5      | facsimile.ab. and barcode.ab. and<br>(authenticat\$3.ab. verificat\$3.ab.) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:30 |
| S74 | 488    | barcode.ab. and (authenticat\$3.ab.<br>verificat\$3.ab.)                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/02/02 18:32 |
| S75 | 30     | barcode.ab. and (authenticat\$3.ab.<br>verificat\$3.ab.)                   | USPAT   | OR | ON  | 2008/02/02 18:33 |
| S76 | 1      | barcode.ab. and (authenticat\$3.ab.<br>verificat\$3.ab.) and halfton\$3    | USPAT   | OR | ON  | 2008/02/02 18:35 |
| S77 | 26     | ("5864622").URPN.  | USPAT   | OR | ON  | 2008/02/02 18:37 |
| S78 | 1      | ("20050166052").PN.  | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 18:54 |
| S79 | 1      | ("6188766").PN.  | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 19:06 |
| S80 | 29     | ("6188766").URPN.  | USPAT   | OR | ON  | 2008/02/02 19:07 |
| S81 | 29     | ("6188766").URPN.  | USPAT   | OR | ON  | 2008/02/02 19:13 |
| S82 | 0      | S70 and (facsimile)  | USPAT   | OR | ON  | 2008/02/02 19:14 |
| S83 | 5      | ("5377017"   "5515176"  <br>"5671285"   "5715070"  <br>"5923763").PN.      | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON  | 2008/02/02 19:14 |
| S84 | 2      | ((("5956154") or ("5671285"))).PN.   | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 19:15 |
| S85 | 13     | ("5956154").URPN.  | USPAT   | OR | ON  | 2008/02/02 19:16 |
| S86 | 1      | ("5598473").PN.  | US-PGPUB;<br>USPAT  | OR | OFF | 2008/02/02 19:21 |